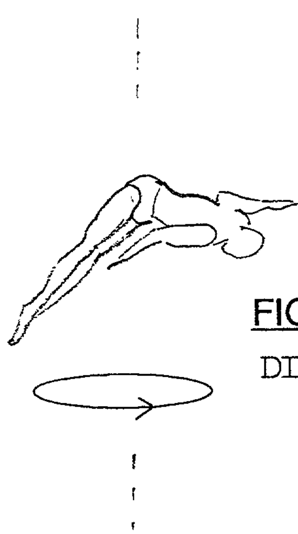


<u>FIG. 1B</u>

DIVERS

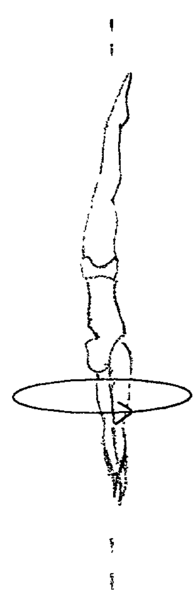
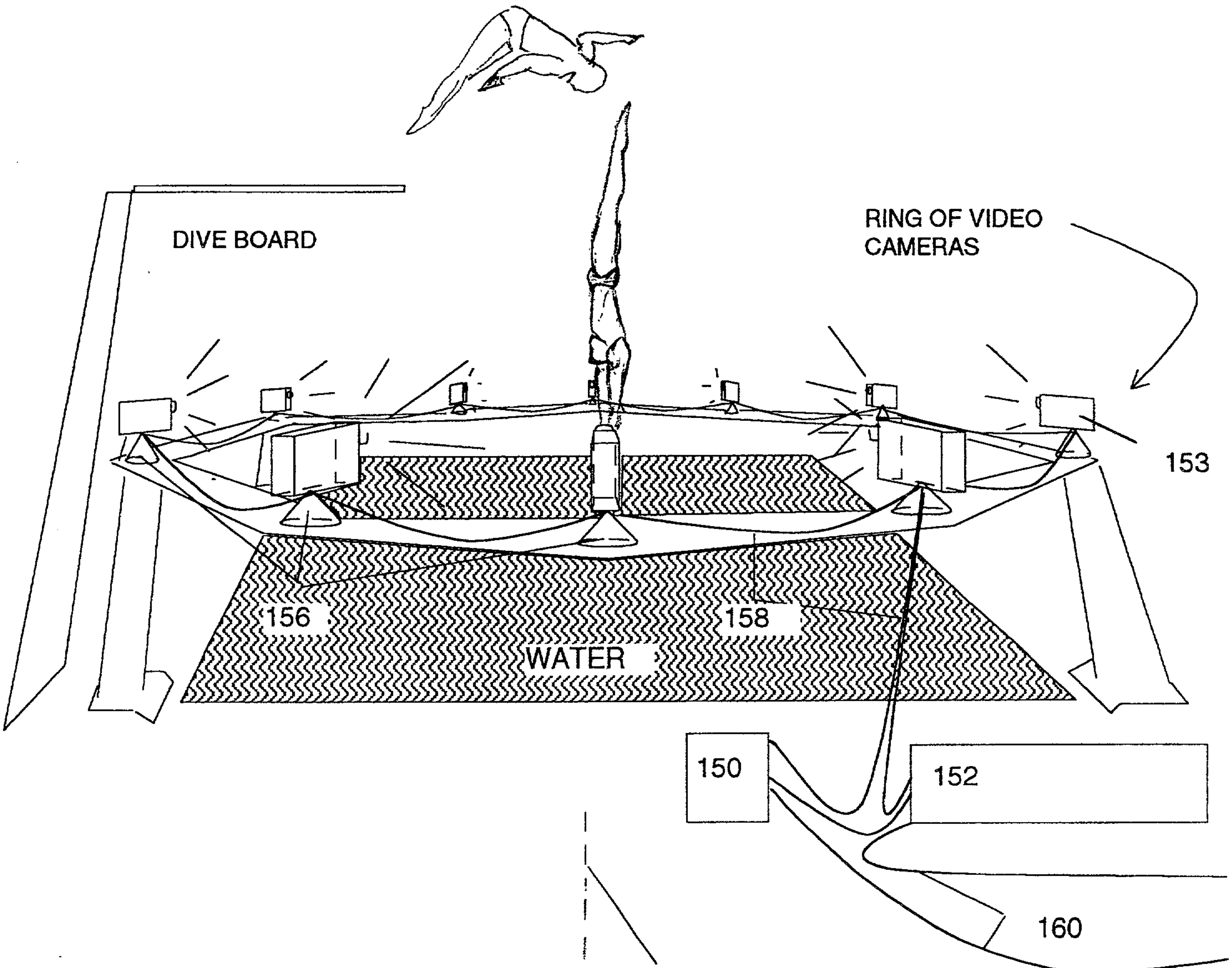


FIG. 1A



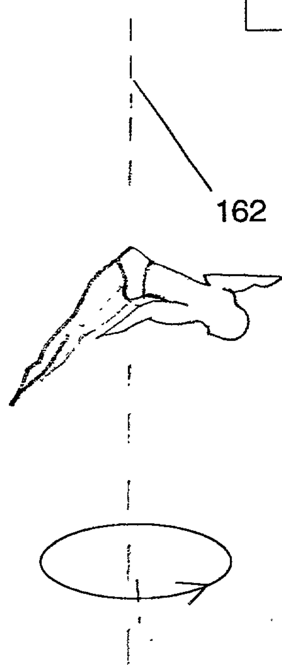


FIG. 1B
DIVER

FIG. 2

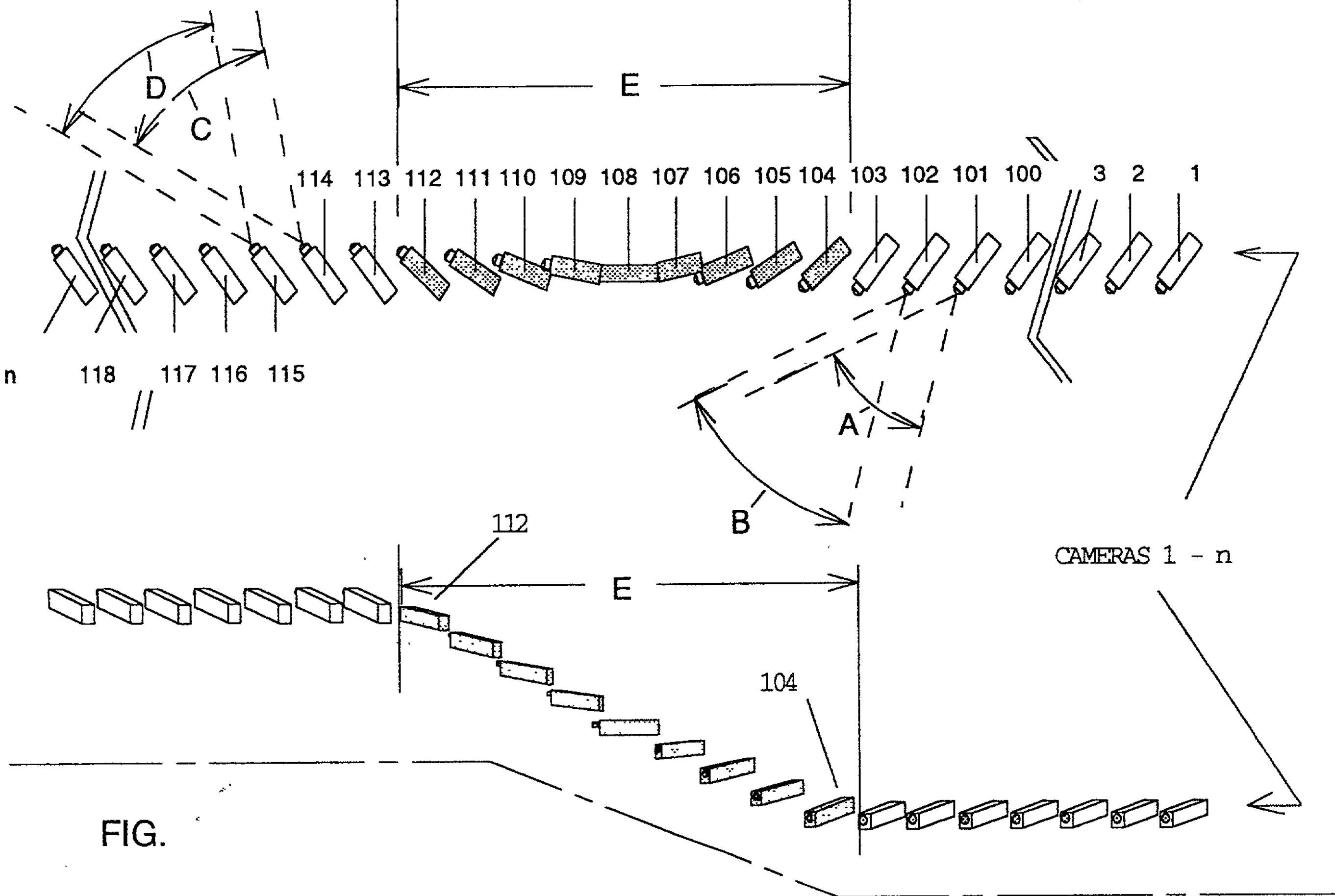

E
D
C
114 113 112 111 110 109 108 107 106 105 104 103 102 101 100 3 2 1
n 118 117 116 115
A
B
112
E
104
CAMERAS 1 - n

FIG.

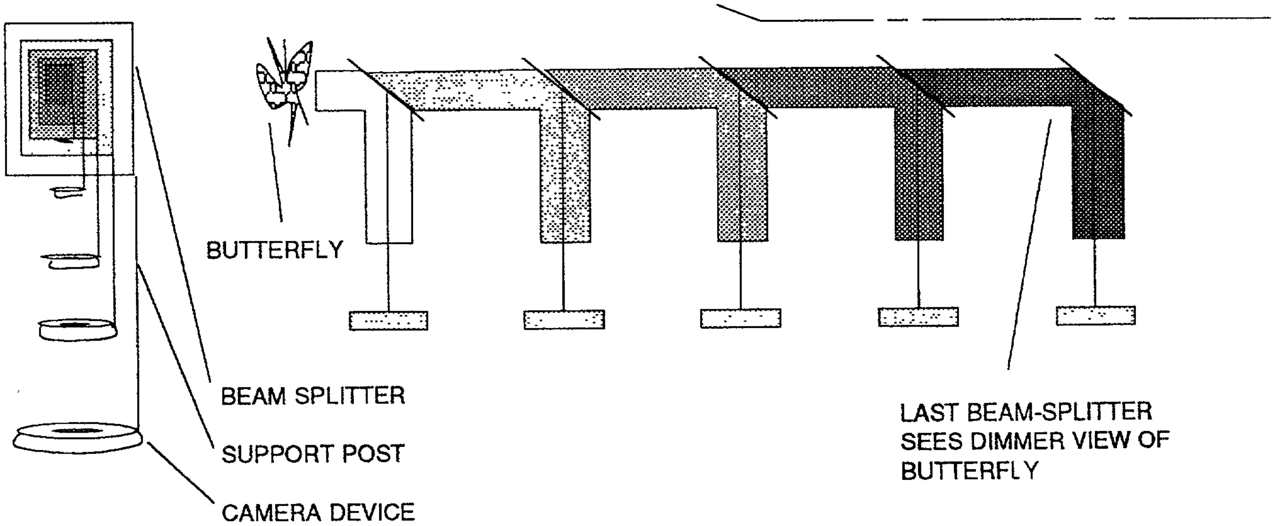
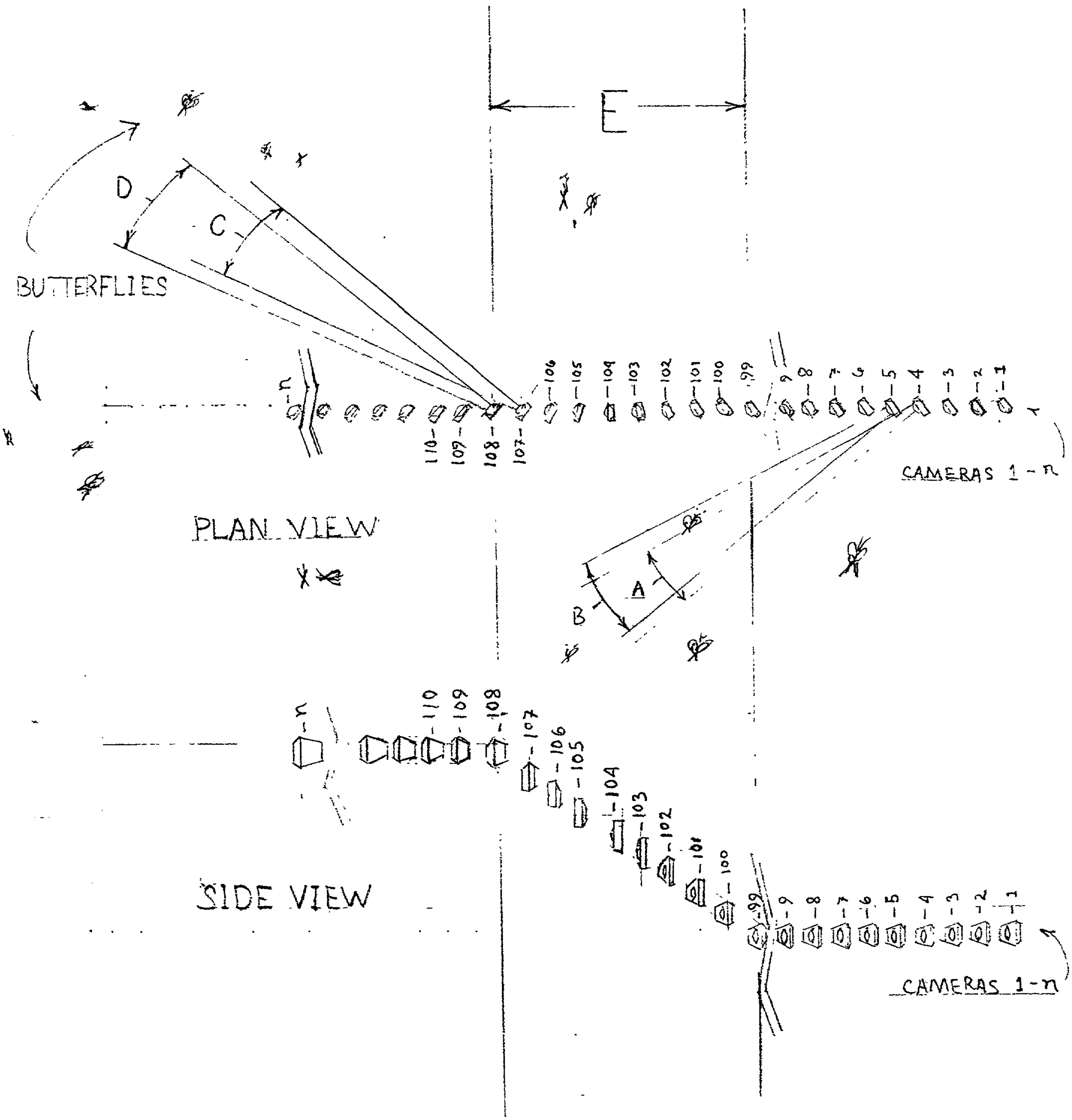

BUTTERFLY
BEAM SPLITTER
SUPPORT POST
CAMERA DEVICE
LAST BEAM-SPLITTER SEES DIMMER VIEW OF BUTTERFLY

FIG. 2


E
D
C
BUTTERFLIES
A
B
PLAN VIEW
CAMERAS 1-n
SIDE VIEW
CAMERAS 1-n

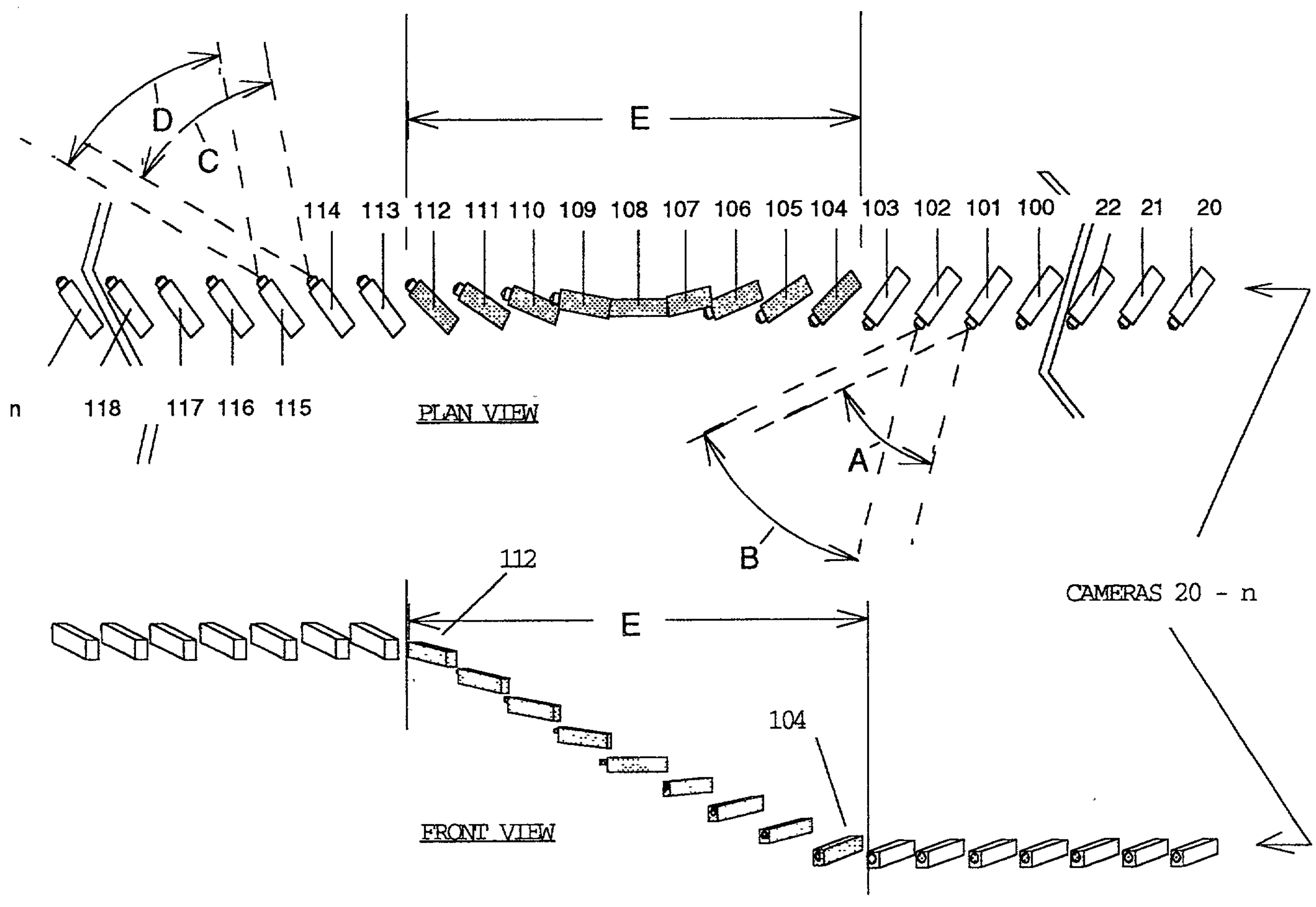
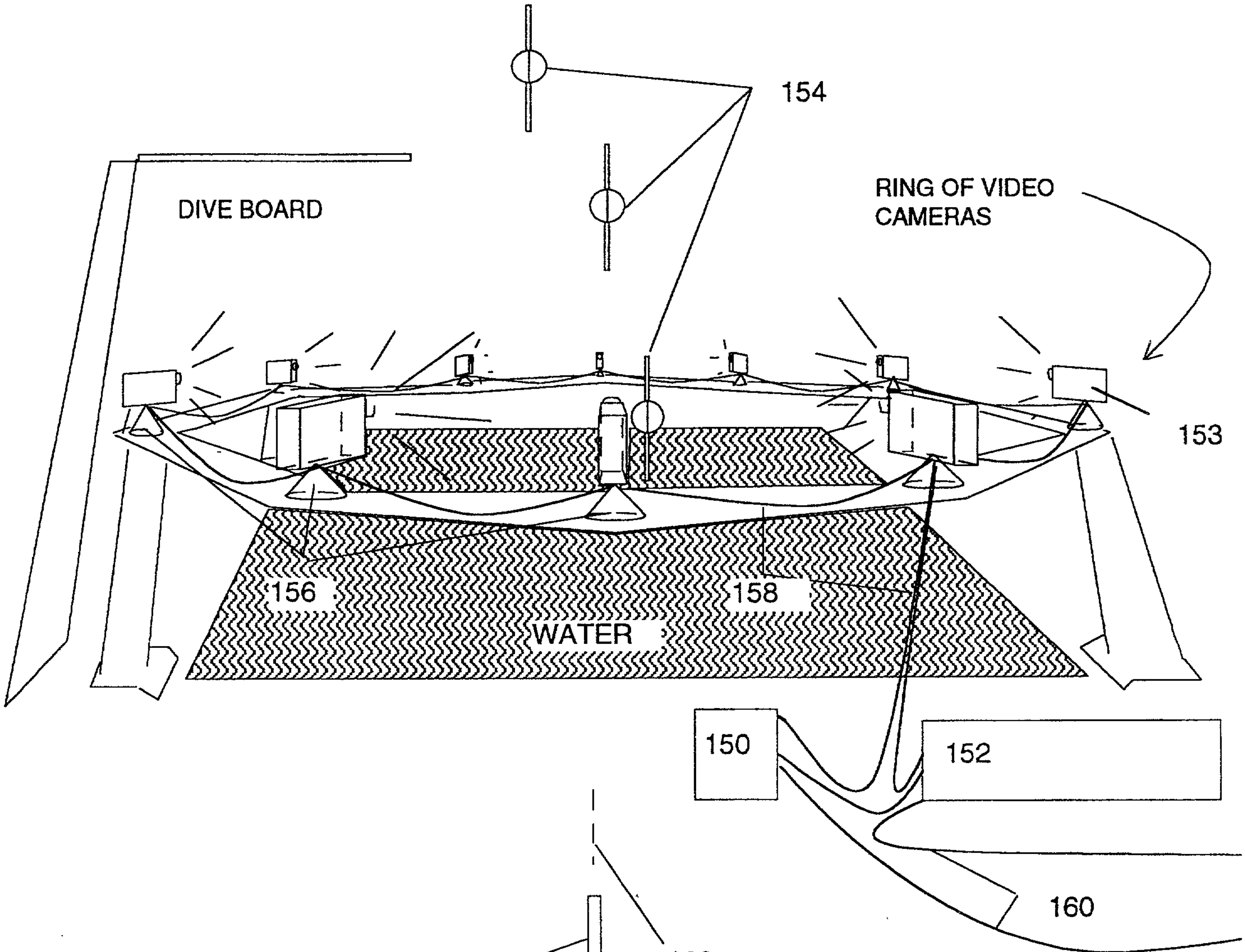

D
C
E
114 113 112 111 110 109 108 107 106 105 104 103 102 101 100 22 21 20
n 118 117 116 115
PLAN VIEW
A
B
112
E
CAMERAS 20 - n
104
FRONT VIEW

FIG. 2

FIG. 3A



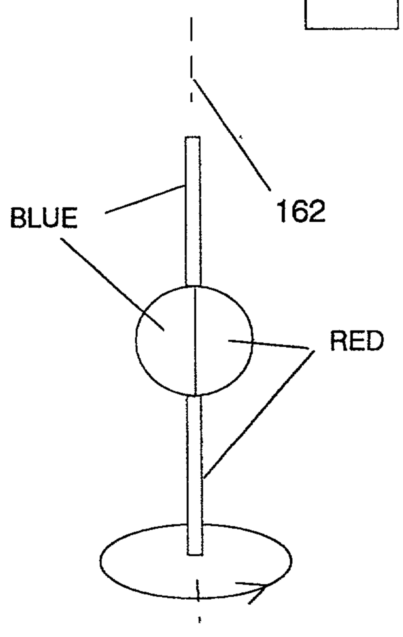


FIG. 3B
ROC TARGET

FIG. 4

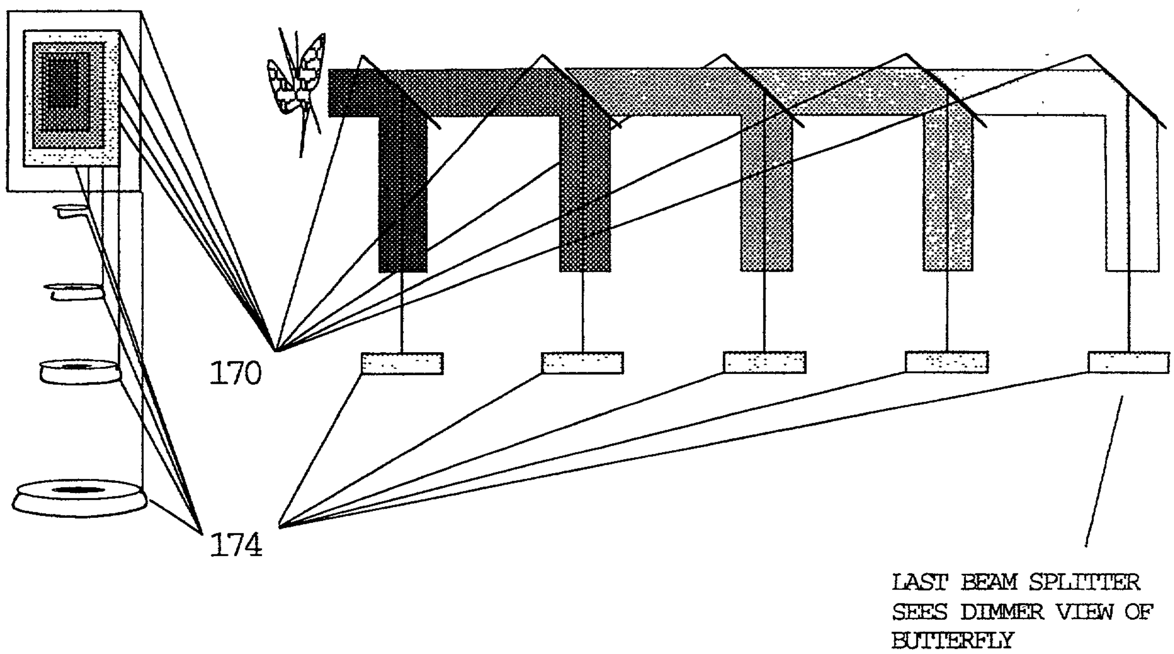


FIG. 5

10 Get hue and intensity values of target surface reflectance characteristics from operator

20 Get ideal image shape, size, and location in final display image from operator

30 For camera x to n, Grab and store image from camera x.

40 Load image x into memory location. Look for pixel hue and/or intensity values which are close to those in 10 to find actual x target image

50 Compare ideal target shape, size and location with actual x image shape, size and location. Make record of changes in target image from x **as aimed** to bring actual into coincidence with ideal.

60 Increment x and repeat lines 20 to 60 until x equals n.

(ROC (Record of Changes) file has been created to adjust recorded or dis played images.)

FIG. 6

10 Get hue and intensity values of target surface reflectance characteristics from operator

20 Get ideal image shape, size, and location in final display image from operator

30 For camera x to n, Grab and store image from camera x.

40 Load image x into memory location. Look for pixel hue and/or intensity values which are close to those in 10 to find actual x target image.

50 Compare ideal target shape, size and location with actual x image shape, size and location. Make record of changes in camera aim, orientation, focus, focal length, to bring actual into coincidence with ideal.

60 Increment x and repeat lines 20 to 60 until x equals n.

(ROC (Record of Changes) file has been created to adjust cameras. Cameras would be adjusted under computer control, according to this ROC file by remote mechanical or electromechanical means. This procedure would be repeated if necessary to update ROC file between adjustments, to fine tune camera array.)

FIG. 7

10 For cameras x to n, grab and record images of subject illuminated by different colored light points. Load camera image x and x+1 into raster display. memories

20 Identify location in raster display memories where same-color light points reside. Record these locations as morph point pairs between camera x and camera x+1 images.

30 For cameras x to n, grab and record images of subject illuminated by white light. Load camera images x and x+1 into raster display memories.

40 Match subject image x with morph point data x. Match subject image x + 1 with morph point data x + 1.

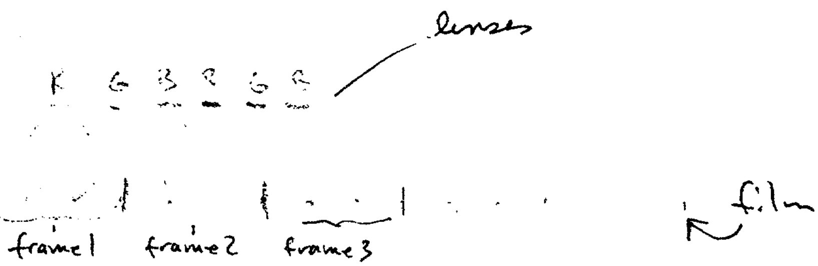
50 Move screen location and hue and brightness values of morph point pixels in image 1 so that they transform incrementally on screen, according to well known interpolation, to produce the desired effect.

60 Repeat for sequential pairs of cameras.

******** Method to squeece more "frames" of visual data onto a length of color film.*******

In our array method, we may choose to squeeze camera elements densely together, filling gaps in our array. At some point, we might want to employ the following method to more densely pack our lens elements.

We could also shoot traditional motion pictures using less film if we employed this method.

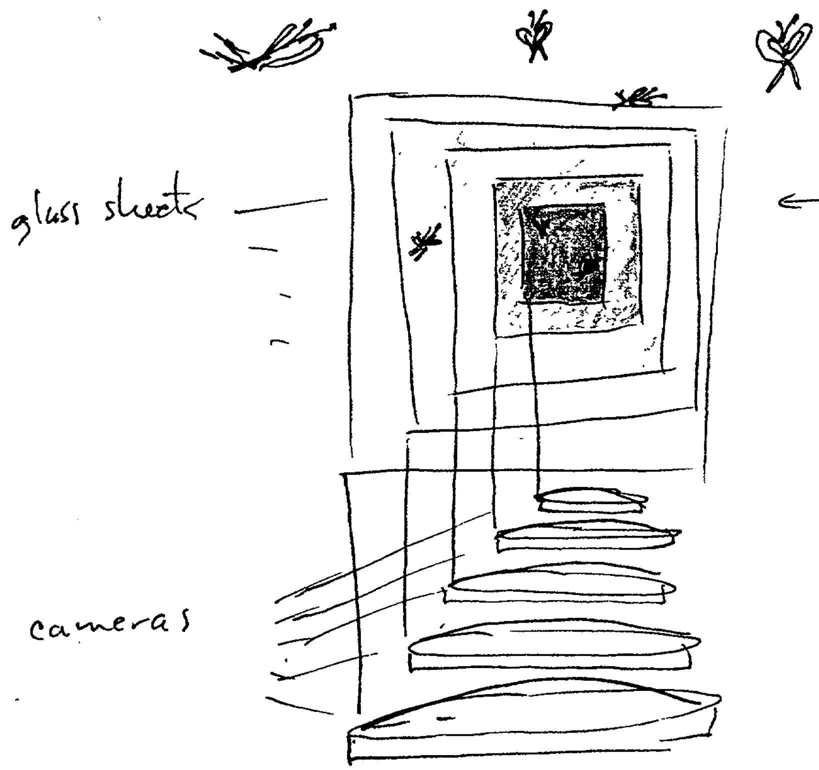


In 2 $2/3$ frames of film, we can squeeze 6 camera images. Red lens only passes red light, which only registers on red layer of emulsion. Etc... Green... Blue.

This arrangement could work in a traditional motion picture camera. Its lens would be filtered to pass red light to a full frame, then $1/24$ sec. later, Green to the same location, then blue. Transport mech. would then advance film to next frame. On, projection we'd reverse the process. Projecting the red, then green, then blue images recorded upon the frame of film, at $1/24$ second intervals. The rapid succession of colored images should form a full color, full motion effect.

I'm not sure, however, that the current emulsion technology can segregate the sensitivity of the R, G, B layers this completely. But some day? Some day soon, film will be obsolete.

An array of this type is unique, because it is composed of cameras which can see through one another, allowing some interesting possibilities when employing our ©chain-camera array method.



super thin, super clear glass sheets, like beam splitters. Each is angled to reflect some light from front view, down to camera device below ~~each glass sheet~~

Last sheet to see light will see dimmer light since each sheet will rob some light. But, we'll know the amount lost at each sheet and can compensate in lab or computer to produce acceptable replay.

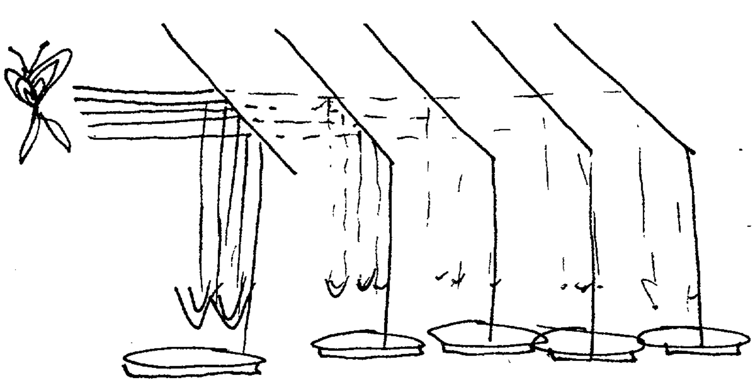
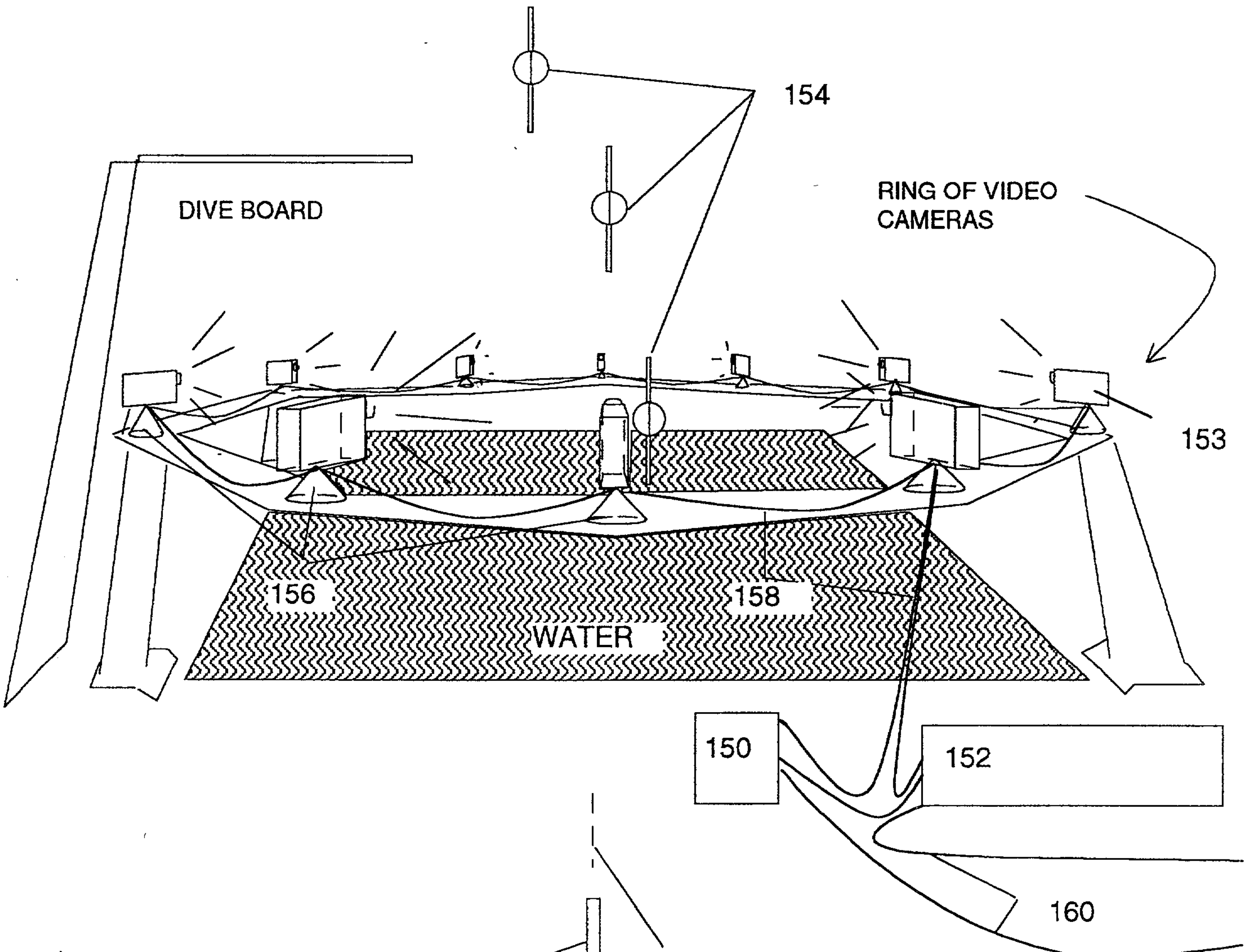


FIG. 3A



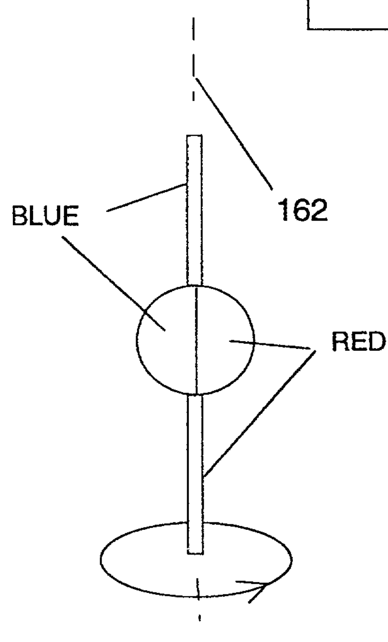
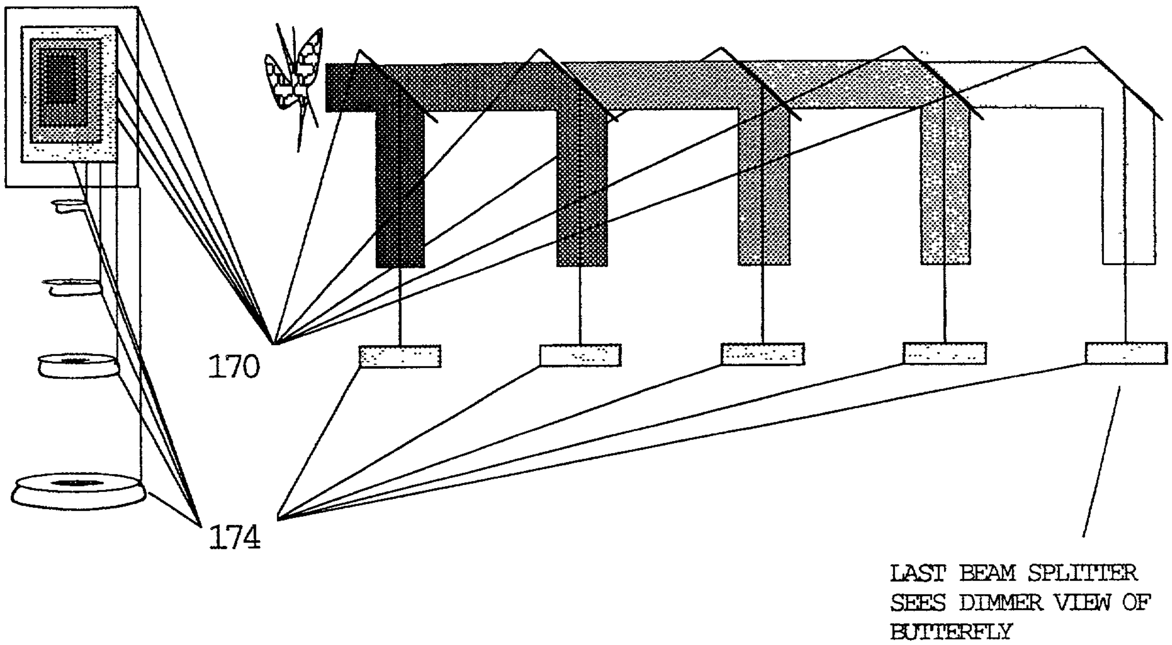


FIG. 3B
ROC TARGET

<u>FIG. 4</u>



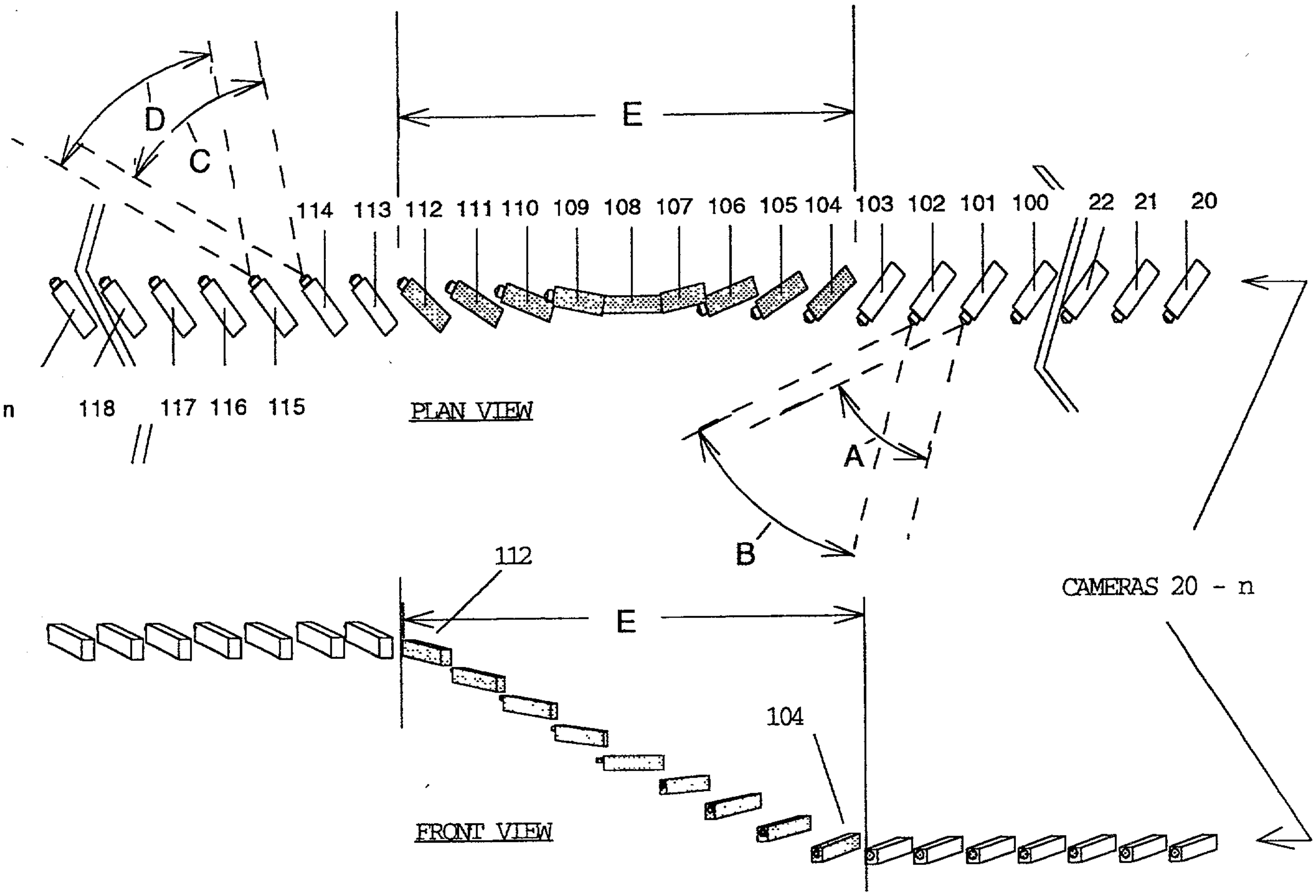

E
D
C
114 113 112 111 110 109 108 107 106 105 104 103 102 101 100 22 21 20
n 118 117 116 115
PLAN VIEW
A
B
112
E
CAMERAS 20 - n
104
FRONT VIEW

FIG.